AMCAP CAPACITORS

THE TRUSTED BRAND SINCE 1984

Engineering | Quality | Performance

Whichever Way You Look At It...

The Leader in Capacitors

Amit Capacitors Limited

CE Certified

IS:13340/41 CM/L-0006085165

An ISO 9001:2015 CERTIFIED COMPANY

RoHS

FAN CAPACITORS

Dry Capacitors

Features
- Made with self-healing Metallised Film
- Can operate with same efficiency at varied temperatures
- Low internal power losses & High Insulation resistance
- Largest supplier of Fan Capacitors in India
- Manufacturing about 200,000 pieces per day

Range
- 1 µF to 10 µF in various can sizes
- Available in PP & Aluminium Can in Pin / Wire Type
- PP Box 2/4 Pin and Wire Terminal

Application
- Ceiling Fans, Table Fans, Pedestal & Wall Fans, Exhaust Fans, Industrial Fans & Blowers, Air Coolers etc

FAN CAPACITORS

Oil Capacitors

Features
- Made with self-healing Metallised Film
- Can operate with same efficiency at varied temperatures
- Low internal power losses & High Insulation resistance
- Largest supplier of Fan Capacitors in India
- Manufacturing about 200,000 pieces per day

Range
- 1 µF to 10 µF in various can sizes
- Available in both PP & Aluminium Can

Application
- Ceiling Fans, Table Fans, Pedestal & Wall Fans, Exhaust Fans, Industrial Fans & Blowers, Air Coolers etc

MOTOR RUN CAPACITORS

Features
- Made with self-healing Metallized Film to ensure long life
- Can operate with same efficiency at varied temperatures
- Specially designed Capacitors for Submersible Pump

Range
- 5 µF to 72 µF
- Available in PP & Aluminium Can in both PIN & Wire type
- Other special sizes & ratings available on request

Application
- Single Phase Motors, Monoblock Pump Sets, Submersible Pump Panel, Industrial Blowers etc

AIR CONDITIONING CAPACITORS

Features
- **BURST PROOF** design in Metal Top assembly
- Inbuilt pressure Sensitive Interrupter to ensure maximum safety
- Single and Dual Capacitors for various applications
- Different types of Terminals to suite the customer requirement
- Highly reliable TIN Plated Terminals

Range
- 1 µF to 80 µF in single & 20+2 µF to 80+5 µF in Dual Capacitor in 370V - 440V
- Other special sizes & ratings available on request
- PP Box 2/4 Pin Configuration

Application
- Air Conditioners, other Refrigeration, White Goods etc.

SUBMERSIBLE PUMP PANEL CAPACITORS

Features
- Made with self-healing Metallized Film to ensure long life
- Minimal dissipation factor leading to much higher reliability
- Available in close tolerance of ± 5 %
- Very low power loss leads to high efficiency

Range
- 25 µF to 100 µF, Wire / Pin Type
- Other special sizes & ratings available on request

Application
- Motor Starters, Monoblock Pump Sets, Submersible Pump Starters Panels

AC MOTOR START CAPACITORS

Features
- Made with self-healing Metallized Film to ensure long life
- Minimal dissipation factor leading to much higher reliability
- Available in close tolerance of ± 5 %
- Very low power loss leads to high efficiency

Range
- 30 µF to 135 µF which is equivalent to 40/60 µF to 250/300 µF in Electrolytic Capacitors
- Other special sizes & ratings available on request

Application
- Monoblock Pump Sets, Submersible Pump Starter Panel Refrigeration & Compressor etc.

WASHING MACHINE CAPACITORS

Features
- Made with Self-Healing Metallized Film to ensure long life
- Dual Capacitors for Semi-Automatic Washing Machine
- Available in IS:2993 and IEC 60252 in Plastic Can

Range
- 5.3+2.1µF to 12+8 µF .
- Customized design for dual capacitance for specific applications depending on machine/motor design
- Other special sizes & ratings available on request
- Available in both PP & Aluminium Can in Two/Four Wires

Application
- General sine-wave Single Phase Motor Run Washing Machine

LIGHTING CAPACITORS

Features
- Made with self-healing Metallized Film
- Manufacturing process is tailor made to suit application
- Very high reliability & long life
- In built discharge resistor
- Can operate at 105C temperatures for HID blast

Range
- 250V, 50 Hz, 4 µF to 72 µF in PP Can with Wire & Pin terminal
- Available in PP Can in various sizes

Application
- Lighting Fixtures, HID Lamp Fixtures, Street Lights etc

Power Factor Correction Capacitors

CYLINDRICAL | MS, PP BOX TYPE

Specifications:
Conforming to BIS Standards 13340 Part I & Part II, IEC 60831 - I & II

Applications:
- Power Factor Correction in Agriculture application

Electrical:
- Long life expectancy up to 100000 hours
- Max inrush current handling capability 200 x IR

Safety:
- Shock hazard protected optimized safety terminals

Mechanical and maintenance:
- Easy installation and connection

Features:
- Cylindrical Aluminium Casing with stud
- Impregnation: Jelly Oil / PU Resin
- Manufactured using Multi Heavy Edge
- Very low losses reduces temperature rise of Capacitors resulting in longer lifer
- Wall mounting arrangement
- Compact Size and light weight
- Voltage range 380- 440V, 50 / 60Hz Monophase & 3-phase
- Self-healing

Standard Duty

Voltage range: 400 - 440V, 50Hz
Output range: 1.00 -15.00 KVAr
Impregnation: PU Resin

AgriGold Heavy Duty

- **Burst Proof**
- **Oil Jelly Filled**

Voltage range: 380 - 440V, 50Hz
Output range: 1.00 -20.00 KVAr

MS Box with Wire

Voltage range: 380 - 440V, 50Hz
Output range: 1.00 - 20.00 KVAr

Plastic Box with Wire

Voltage range: 380 - 440V, 50Hz
Output range: 1.00 - 7.00 KVAr

Monophase Capacitors

- **Explosion Proof**
- **Impregnation: Oil Jelly**
- **Wire Terminal for easy installation**

Voltage range: 230 - 275V, 50 / 60Hz
Output range: 1.00 - 10.00 KVAr
Life Expectancy: 100000 hours
Max inrush current capability 200 x IR

Industrial Application

STANDARD DUTY | HEAVY DUTY | SUPER HEAVY DUTY

Awareness of the necessity of power is increasing and Power Factor Correction (PFC) is being implemented on a growing scale. Enhancing power quality, improvement of Power Factor, saves costs and endures fast return on investment. In Power distribution in low and medium-Voltage networks, PFC focus on the Power Flow (CosØ) and the optimization of Voltage stability by generating Reactive Power to improve Voltage quality and reliability at distribution level.

ACL manufactured AMCAP Brand Power Capacitors are manufactured since decades at the company's Hyderabad production site in Telangana, India. This has resulted in a consistently high product quality being maintained for assured operational reliability and long service life.

Features:

- Conforming to BIS Standards 13340 Part I & Part II, IEC 60831 - I & II
- Cylindrical Aluminium Casing with stud
- Long life expectancy
- Manufactured using Multi Heavy Edge Metallized PP Film ensuring better bonding between the electrode and end spray
- Self-Healing
- Very low losses reduces temperature rise of Capacitors resulting in longer life
- Easy mounting arrangement

Safety:

- Self-healing property eliminates possibilities of short circuit as internal faults heal automatically
- Shock hazard protected optimized safety terminals

Applications:

- Power Factor improvement in small scale industries, Machine shops, tool rooms small frame Motor compensation and Agriculture application
- Automatic Capacitor Banks
- Fixed PFC applications, e.g. Motor compensation

- **Overpressure Disconnector**
- **Oil Jelly Filled**
- **Double Di-electric**

Particulars	Standard Duty	Heavy Duty	Super Heavy Duty
Casing	Al Cylindrical /MS Box	Al Cylindrical /MS Box	Al Cylindrical /MS Box
Voltage Range	380- 440V, 50 / 60Hz	380- 480V, 50 / 60Hz	380- 690V, 50 / 60Hz
Output Range	1 - 25 KVAr	5 - 25 KVAr	5 - 25 KVAr
Max inrush Current Handling Capacity	Up to 200 x I_R	Up to 250 x I_R	Up to 300 x I_R
Life Expectancy	100000 Hours	150000 Hours	200000 Hours

Harmonic Filters

Application:

- Avoidance of resonance conditions
- Tuned and detuned harmonic filters
- Reduction of harmonic distortion (network clearing)
- Reduction of power losses

Features:

- Very low losses
- High linearity to avoid choke tilt
- Low noise
- Convenient mounting

Range:

- Detuned Copper & Aluminium Recators
- Voltage – 400V to 440V
- Output – 5 KVAr to 100 KVAr

Application

Avoidance of resonance conditions
Reduction of Harmonic Distortion

Table of multiplying factor for calculation required capacitor rating

Initial PF	Target PF									
	0.70	0.75	0.80	0.85	0.87	0.90	0.92	0.95	0.97	1.00
0.30	2.15	2.29	2.43	2.56	2.61	2.70	2.75	2.85	2.93	3.18
0.35	1.66	1.80	1.93	2.05	2.11	2.19	2.25	2.35	2.43	2.68
0.40	1.27	1.41	1.54	1.67	1.72	1.81	1.87	1.96	2.04	2.29
0.45	0.96	1.10	1.23	1.36	1.42	1.50	1.56	1.66	1.73	1.98
0.50	0.71	0.85	0.98	1.11	1.17	1.25	1.31	1.40	1.48	1.73
0.52	0.62	0.76	0.89	1.02	1.08	1.15	1.22	1.31	1.39	1.64
0.54	0.54	0.68	0.81	0.94	0.99	1.07	1.13	1.23	1.31	1.56
0.55	0.50	0.64	0.77	0.90	0.95	1.03	1.09	1.19	1.27	1.52
0.56	0.46	0.60	0.73	0.89	0.91	1.00	1.05	1.15	1.23	1.48
0.58	0.38	0.52	0.65	0.78	0.84	0.92	0.98	1.08	1.15	1.40
0.60	0.31	0.45	0.58	0.71	0.77	0.85	0.91	1.00	1.08	1.33
0.62	0.25	0.38	0.52	0.65	0.70	0.78	0.84	0.94	1.01	1.27
0.64	0.18	0.32	0.45	0.58	0.63	0.72	0.77	0.87	0.95	1.20
0.65	0.15	0.29	0.42	0.55	0.60	0.68	0.74	0.84	0.92	1.17
0.66	0.12	0.26	0.39	0.52	0.57	0.65	0.71	0.81	0.89	1.14
0.68	0.06	0.20	0.33	0.46	0.51	0.59	0.65	0.75	0.83	1.08
0.70		0.14	0.27	0.40	0.45	0.54	0.59	0.69	0.77	1.02
0.72		0.08	0.21	0.34	0.40	0.48	0.54	0.63	0.71	0.96
0.74		0.03	0.16	0.29	0.34	0.42	0.48	0.58	0.66	0.91
0.75			0.13	0.26	0.32	0.40	0.46	0.55	0.63	0.88
0.76			0.11	0.24	0.29	0.37	0.43	0.53	0.60	0.86
0.78			0.05	0.18	0.24	0.32	0.38	0.47	0.55	0.80
0.80				0.18	0.18	0.27	0.32	0.42	0.50	0.75
0.82				0.08	0.13	0.21	0.27	0.37	0.45	0.70
0.84				0.03	0.08	0.16	0.22	0.32	0.40	0.65
0.85					0.05	0.14	0.19	0.29	0.37	0.62
0.86					0.03	0.11	0.17	0.26	0.34	0.59
0.88						0.06	0.11	0.21	0.29	0.54
0.90								0.16	0.23	0.48
0.92								0.10	0.18	0.43
0.94								0.03	0.11	0.36
0.95									0.08	0.32
0.96									0.04	0.29
0.98										0.20
1.00										

Example
Load = 500 KW
Initial PF = 0.80
Target PF = 0.90
Kvar Compensation required = 500 * 0.27
= 135 KVAr

Recommended capacitor rating for direct connection to induction motors

(for improvement power factor to 0.95 or better)

Motor Rating in H.P.	Capacitor rating in KVAr when motor speed in RPM is:						Motor Rating in H.P.	Capacitor rating in KVAr when motor speed in RPM is:					
	3000	1500	1000	750	600	500		3000	1500	1000	750	600	500
2.5	1	1	1.5	2	2.5	2.5	105	22	24	27	29	36	41
5	2	2	2.5	3.5	4	4	110	23	25	28	30	38	43
7.5	2.5	3	3.5	4.5	5	5.5	115	24	26	29	31	39	44
10	3	4	4.5	5.5	6	6.5	120	25	27	30	32	40	46
12.5	3.5	4.5	5	6.5	7.5	8	125	26	28	31	33	41	47
15	4	5	6	7.5	8.5	9	130	27	29	32	34	43	49
17.5	4.5	5.5	6.5	8	10	10.5	135	28	30	33	35	44	50
20	5	6	7	9	11	12	140	29	31	34	36	46	52
22.5	5.5	6.5	8	10	12	13	145	30	32	35	37	47	54
25	6	7	9	10.5	13	14.5	150	31	33	36	38	48	55
27.5	6.5	7.5	9.5	11.5	14	16	155	32	34	37	39	49	56
30	7	8	10	12	15	17	160	33	35	38	40	50	57
32.5	7.5	8.5	11	13	16	18	165	34	36	39	41	51	59
35	8	9	11.5	13.5	17	19	170	35	37	40	42	53	60
37.5	8.5	9.5	12	14	18	20	175	36	38	41	43	54	61
40	9	10	13	15	19	21	180	37	39	42	44	55	62
42.5	9.5	11	14	16	20	22	185	38	40	43	45	56	63
45	10	11.5	14.5	16.5	21	23	190	38	40	43	45	58	65
47.5	10.5	12	15	17	22	24	195	39	41	44	46	59	66
50	11	12.5	16	18	23	25	200	40	42	45	47	60	67
55	12	13.5	17	19	24	26	205	41	43	46	48	61	68
60	13	14.5	18	20	26	28	210	42	44	47	49	61	69
65	14	15.5	19	21	27	29	215	42	44	47	49	62	70
70	15	16.5	20	22	28	31	220	43	45	48	50	63	71
75	16	17	21	23	29	32	225	44	46	49	51	64	72
80	17	19	22	24	30	34	230	45	47	50	52	65	73
85	18	20	23	25	31	35	235	46	48	51	53	65	74
90	19	21	24	26	33	37	240	46	48	51	53	66	75
95	20	22	25	27	34	38	245	47	49	52	54	67	75
100	21	23	26	28	35	40	250	48	50	53	55	68	76

Note: The recommended capacitor rating given in the table are only guidance values. Capacitors sizing must be made to compensate upto 90% of the motor magnetism to avoid self excitation phenomenon.

About us

Established in 1983, **Amit Capacitors** is known as one of the most prominent Capacitor manufacturer in India. We have specialized in manufacturing of wide range of Capacitors for Air-conditioning, Fan, Motor Run & Start, Air-conditioning, Submersible Pump, Washing Machine and Oil Capacitors. Power Factor Correction Capacitors & Harmonic Filters, and have successfully reached the top 15 million US $ segment.

ACL is an ISO 9001:2015 certified company, with ISI and CE approvals and have 3 State of the Art manufacturing units located in Hyderabad and Goa, India. The company has one of the largest installed base to manufacture Capacitors, manufacturing more than 25 Million pieces per annum.

ACL manufactured products have received significant recognition in Middle East & ASEAN Countries.

Vision

ACL envisions being a leader not just in manufacturing but also in promoting corporate governance and bench marking strategies for success, employee welfare and social well being.

Mision

ACL progresses with the sole Mision of creating the highest product value, offering meaningful representations to its employees, customers, vendors and share holders, using globally acknowledged best business models and contemporary eco green practices.

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